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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,031	01/17/2001	Christoph Kleinlogel	00-725	8064

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Bachman & LaPointe, P.C.
900 Chapel Street, Suite 1201
New Haven, CT 06510-2802

EXAMINER

DERRINGTON, JAMES H

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,031

Applicant(s)

KLEINLOGEL ET AL.

Examiner

James Derrington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 91/09430 in view of Overs et al and/or Van Herle.

WO 91/09430 disclose compositions comprising ceria and dopants falling within the formula recited in claim 1 (See page 4). The composition of WO 91/09430 is suitable for producing sintered articles. Overs disclose a related doped ceria where the composition is prepared by coprecipitated oxalates. The resultant materials can be sintered at low temperatures and result in small grain sizes. It would have been obvious for one of ordinary skill in the art to use the coprecipitated oxalate procedure of Overs et al for preparing the doped ceria materials of WO 91/09430 in order to achieve the benefits of low sintering temperature and small grain size.

Van Herle disclose a related doped ceria where the composition is prepared by wet ball milling. The resultant materials can be sintered at low temperatures and result in small grain sizes. It would have been obvious for one of ordinary skill in the art to use the wet ball milling process of Van Herle for preparing the doped ceria materials of WO 91/09430 in order to achieve the benefits of low sintering temperatures and very small grain size.

Applicant's arguments have been reviewed; however, they are not persuasive for the following reasons. The position is maintained that there is incentive to use the

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coprecipitated oxalate procedure of Overs et al for preparing the doped ceria materials of WO 91/09430 in order to achieve the benefits of low sintering temperature and small grain size. The additional limitations, including "monitoring the temperature", interrupting the temperature, heating rates, holding times, grinding wet or dry, filtering and calcination are all well known and obvious procedures and well within the purview of one ordinary skill in the art when considering the combined teachings of the references. The claims are inclusive of a sintering temperature of 1200 °C and this temperature is disclosed by Van Herle.

Applicant has now added additional limitations including a lower limit for the second dopant and a density of at least around 98% of theoretically possible density". These limitations do not obviate the rejections because the current language is not commensurate in scope with the showings in the specification. Particularly the density shown in the table at page 10, i.e. 98 or 99 % when the second doping agent is employed. The current language "at least around 98%" is inclusive of lower densities such as the 93% shown by Van Herle.

Applicant's response and the amendments have been carefully reviewed. It is suggested that the word "around" be deleted from claims 11 and 21. The cited references do not show or reasonably suggest the instant process conducted where a product results having "a density of at least 98% of theoretically possible density".

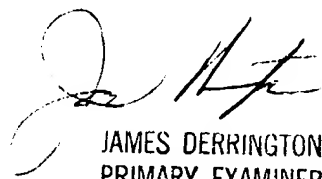
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Derrington whose telephone number is 703 308-3832. The examiner can normally be reached on 8:30am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7718 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.


JAMES DERRINGTON
PRIMARY EXAMINER
ART UNIT 137-1751

jd
June 2, 2003